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CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 August 2001 (30.08.2001)

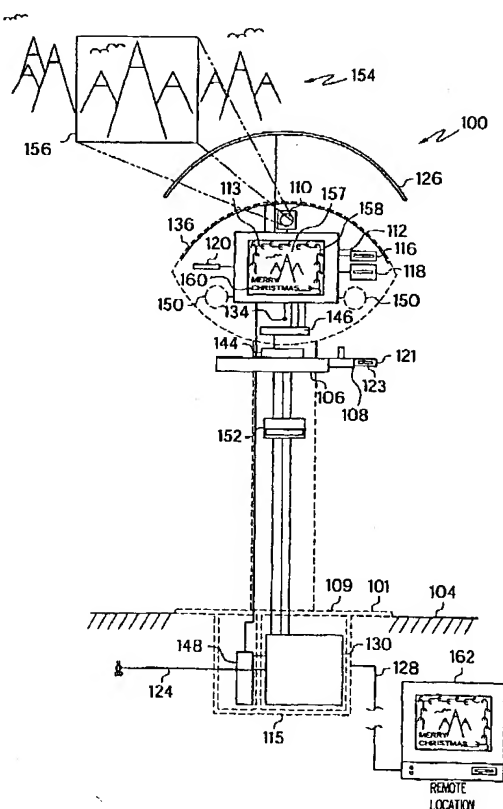
PCT

(10) International Publication Number
WO 01/063518 A2

- (51) International Patent Classification⁷: G06F 17/60
- (21) International Application Number: PCT/US01/40161
- (22) International Filing Date: 23 February 2001 (23.02.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/512,579 24 February 2000 (24.02.2000) US
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

[Continued on next page]

(54) Title: KIOSK APPARATUS AND METHOD FOR GATHERING AND TRANSMITTING DATA



(57) Abstract: An apparatus and method for gathering and transmitting data to remote location. Initially, payment is introduced to the kiosk apparatus. Once approved, the kiosk records data, such as a digital image from a tourist location, or other point of interest with a digital capture device and then transmits the data to a remote location for later viewing. Alternatively, once payment is approved, the data is uploaded from a portable electronic device, such as a digital camera, to the kiosk apparatus and transmitted to the remote location.

WO 01/063518 A2



(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(48) Date of publication of this corrected version:

13 February 2003

(15) Information about Correction:

see PCT Gazette No. 07/2003 of 13 February 2003, Section II

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

KIOSK APPARATUS AND METHOD FOR GATHERING AND TRANSMITTING DATA

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TECHNICAL FIELD

This invention relates generally to data transmission, and more particularly to a multimedia kiosk vending device for obtaining a digital photo, video image or audio digital and uploading the information for simultaneous transmission to a remote location or for storage on a remote location for later retrieval via the Internet.

BACKGROUND OF THE INVENTION

Conventional digital capture devices typically include a limited internal memory unit for storage of digital photos or videos. The compact nature of the device also generally limits the space allocated for internal memory. Once the stored data fills the allocated space, the digital information must be uploaded and erased or the entire memory unit must be replaced in order to store additional data. Unfortunately, uploading the stored information directly to a personal computer requires the availability of such a computer when using the capture device. It will be appreciated that it can be cumbersome and/or inconvenient to transport a computer for uploading files from the device.

Moreover, removing a filled memory unit from the device for later processing is inconvenient and can result in the loss of the memory unit and stored data. In addition, obtaining additional memory units to replace filled memory units requires the user to purchase and transport multiple memory units which may be cumbersome and expensive.

5 Digital cameras and other personal digital data acquisition devices, however, may be prohibitively expensive to acquire and/or impractical for ownership by the masses. It would be beneficial to have a pay-for-use kiosk apparatus at a location, such as a tourist location or other convenient locations, that can capture and transmit an image or series of images to any other desired location or recipient and that allows the image to be
10 modified, customized, and enhanced. Such a kiosk apparatus would eliminate the need to purchase or rent an expensive camera and transport a camera, video equipment, film, memory and/or photos from the one location to another.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to obviate problems and
15 shortcomings of conventional devices used to obtain visual and/or audio data. More particularly, it is an object of the present invention to provide a multi-functional kiosk apparatus for gathering and/or transmitting data to a remote location.

It is another object of the invention to allow a user to free memory on a digital camera without loss of data and without the need for owning and transporting a computer
20 or additional memory media.

Yet another object of the invention is to allow a user to take and send photographs

or videos without the need for owning and transporting a camera, camcorder and related devices.

Another object of the invention is to provide a pay-per-use kiosk for taking digital images, videos, and/or digital audio and transmitting them to a desired location and/or
5 recipient.

Another object of the invention is to allow a user to view surrounding scenery without the need for owning and transporting a telescope or other image magnification device.

To achieve the foregoing and other objects and in accordance with the present
10 invention, kiosk apparatus is provided. The kiosk apparatus may include a digital image device for gathering digital image data and/or a microphone for collecting digital audio. A vending apparatus may be provided for accepting payment. A processing unit may also be provided in communication with the vending apparatus and the digital image capture device and configured to receive the digital image data and detect the payment.

15 The kiosk apparatus of the present invention are advantageous in that they facilitate viewing visual data and/or gathering and transmitting visual and/or audio data to a remote location. Still other advantages of the present invention will become apparent to those skilled in the art from the following description wherein there are shown and described alternative exemplary embodiments of this invention. As will be realized, the
20 invention is capable of other different, obvious aspects and embodiments, all without departing from the invention. Accordingly, the drawings and descriptions should be regarded as illustrative in nature and not as restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

While the specification concludes with claims particularly pointing out and distinctly claiming the present invention, it is believed the same will be better understood from the following description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a front elevational view of a kiosk apparatus made in accordance with principles of the present invention;

FIG. 2 is a front view of another kiosk apparatus having a cart for mobility wherein the interior components are shown;

FIG. 3 is a front elevational view of another kiosk apparatus, and made according to the principles of the present invention, wherein the interior components are shown;

FIG. 4 is a rear elevational view of the kiosk apparatus of FIG. 3 wherein the interior components are shown;

FIG. 5 is a side elevational view of the kiosk apparatus of FIG. 3 wherein the interior components are shown;

FIG. 6 is a block diagram illustrating kiosk component connections to a central processing unit according to principles of the present invention;

FIG. 7 is a flow diagram illustrating alternative methods of using a kiosk apparatus of FIGS. 1-6 in accordance with the present invention;

FIG. 8 is a flow diagram illustrating a method of using a kiosk apparatus as a digital telescope;

FIG. 9 is a flow diagram illustrating a method of using a kiosk apparatus to capture a digital video;

5 FIG. 10 is a flow diagram illustrating a method of using a kiosk apparatus to capture a digital photo;

FIG. 11 is a flow diagram illustrating a method of using a kiosk apparatus to upload data;

10 FIG. 12 is a flow diagram illustrating a method of using a kiosk apparatus to video conference;

FIG. 13 is a flow diagram illustrating a method of using a kiosk apparatus to search for data;

FIG. 14 is a flow diagram illustrating a method of using a kiosk apparatus to send an e-mail with a stock card;

15 FIG. 15 is a flow diagram illustrating a method of providing a kiosk apparatus with payment; and

FIG. 16 is a flow diagram illustrating a method of using a kiosk apparatus to transfer data from a compact storage unit to a remote location.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Turning now to the drawings in detail, wherein like numbers illustrate corresponding structure, a user apparatus is provided that is capable of being controlled by a user. The user apparatus could take many forms which allow a user to access the apparatus. For instance, the user apparatus could take the form of a kiosk apparatus 100 for gathering and transmitting data to a remote location. The data could consist of any type of information such as digital data or signals, non-digital data or signals, digital image data, digital video data, compressed data, encrypted data, or the like. The remote location could be any position. Preferably, the remote location is spaced from the user apparatus. For instance, the location could be a storage medium such as a floppy disk or other storage medium, another computer, a computer server, a network, a television, another user apparatus, an e-mail in box, or the like.

As shown in FIG. 1, the kiosk apparatus 100 may include a stand 102 for anchoring to a support surface 104. In one embodiment, the stand 102 can be permanently mounted to a support surface 104. For example, a cement and pole assembly can be provided to permanently anchor the stand 102 to the support surface 104. The stand 102 can also comprise four rod posts 105 (i.e., two rear rods located behind the two front rods shown in FIG. 1) that are anchored to the support surface 104 by securing a plate 101 to the surface 104 with bolts 103.

In one embodiment, the rod posts 105 may comprise a first set of rods 117 telescopically received in a second set of rods 119, thereby providing a stand having a vertically adjustable height to accommodate various users of the apparatus. In another embodiment, a base 115 is provided that is mounted to the rod posts 105 and the plate

101. A conduit 107 may also be provided to enclose any electrical wiring extending along the stand 102. The conduit 107 and electrical wiring may take the form of an armored cable.

As shown in FIG. 1, the base could be formed as a raised step for the user. The base 115 can also include an interior cavity having an access door 109 for storing electrical components of the apparatus. Alternatively, the base can be countersunk into the ground with the access door 109 located at a top portion of the base, as shown in FIG. 3.

Computer programs to run the kiosk could be loaded on the system on site. Alternatively, software could be loaded off site by establishing a remote link with another system. For instance, updated kiosk apparatus software could be pushed to all existing kiosks from a single remote location without having to physically visit each kiosk apparatus. Similarly, if the kiosk is used as a game center, software games could be uploaded to the kiosk apparatus from the remote location.

As shown in FIG. 2, another kiosk apparatus 200 is similar to kiosk apparatus 100 except, the apparatus 200 includes a transport device 202 with wheels 204, such as heavy duty rubber wheels, providing mobility. The transport device 202 also includes a protective wheel guard 206 incorporating a wheel lock (not shown). The wheel guard 206 helps prevent contact between the wheels and objects adjacent the apparatus 200. Moreover, the wheel lock immobilizes the apparatus 200 once the apparatus has been wheeled in place. A grounding strap (not shown) may also be provided to electronically ground the mobile kiosk.

The kiosk apparatus includes an image device for obtaining data. The image

device collects digital or non-digital data. For instance, the image device could take the form of a digital image device or a non-digital image device. In one embodiment, the image device is in the form of an input port. In one particular embodiment, the input port could take the form of a digital input port that may comprise a digital media reader 120
5 for gathering data from a compact storage unit of a portable electronic device (not shown), such as a digital camera, MP3 audio player/recorder, or a PALM PILOT organizer used as a hand held information storage device. The digital media reader 120 may be connected to a central processing unit ("CPU") 122 by an electrical connection such as a universal serial bus ("USB") cable. It is understood that the input port can be
10 designed to interface with many types of devices that upload digital information. For instance, the input device can be designed to upload information from a floppy disk, PCMCIA card, an infrared transmitter, a parallel cable, a SCSI cable, serial cable, a universal serial bus "USB" cable, or the like.

As shown in FIGS. 4 and 5, the digital image device may take the form of a rear
15 image capture device 111 for capturing images directed towards the user of the apparatus. The kiosk apparatus may include a timer for allowing the user to enter the scene before the image device captures the photo. For instance, the timer could comprise flashing red light or a beeping auditory signal that increases in frequency until the photo is taken. As shown in FIGS. 3-5, the digital image device may also take the form of a front image
20 capture device 110 directed to capture image data of the user of the apparatus. A combination of capture devices 110, 111 can be provided to allow a user to take a picture of the scenery as well as a group or self-portrait. The combination of capture devices 110, 111 may allow simultaneous split screen images to be displayed in a dual camera mode. Each of the split screens would include image/video obtained from a corresponding one

of the capture devices 110, 111. Audio data may be obtained from a microphone 134 and/or from the capture devices 110, 111. The image capture devices 110, 111 can store the visual data for later retrieval. Alternatively the image capture devices 110, 111 can immediately transmit the information for real time data transfer, in a process known as
5 streaming. The kiosk apparatus could also be designed to transform the captured data before downloading or to allow the user to transform the data before downloading. For instance, the user could modify the captured data with an editing program, thereby enhancing or significantly modifying the data to achieve a desired appearance or effect.

10 As shown in FIGS. 3-6, interface modules or circuitry can be provided for electrically connecting the capture device 110, 111 to the CPU 122. For instance, a video card may be used for encoding of digital video, video replay and compression and decompression. Alternatively, or in addition, a IEEE1394 FIREWIRE card or card of like capacity may be used for capturing digital video streams from the digital capture devices
15 110, 111. The devices 110, 111 can take many forms such as a digital camera, a digital video camcorder, an analog camcorder with a digital converter, a high definition television recording device, a 3-D video recording device, or a digital video component for capturing data in the form of a digital photo, sequence, or scene. The digital capture devices 110, 111 may further include a lighting device (not shown) for illumination and/or
20 lens filters to control illumination or otherwise modify the captured data.

Payment for the services of an apparatus may be provided in a variety of ways such as debit/credit cards, debit/credit accounts, currency, check, pre-paid cards or the like. For instance, if an attendant is operating the kiosk apparatus for the user, the

attendant may simply accept payment in the form of currency, check, token, or other form of payment. The apparatus can also be designed to directly charge the user's cellular phone account or a registered account previously set up by the user. In addition, the apparatus preferably includes a vending apparatus such as a currency validator 118 for
5 accepting currency as payment and/or a card reader 116 for accepting payment account information from a debit/credit card. As illustrated in FIGS. 3-6, the credit card reader 116 and currency validator 118 may be connected to the CPU 122 by internal circuitry such as a serial or phone line. The currency validator 118, for instance, may be similar to the AMAZING 125 UNV without LRC validator which is available from Happ Controls.
10 For example, the card reader may be a Port Powered RS 232 insert card reader manufactured by Magtek.

The kiosk apparatus could also include an accounting device (not shown) that monitors the usage of the kiosk apparatus. Updated account information will allow a comparison between the payments received and the usage of the device.

15 The CPU 122 may be provided for controlling components of the kiosk apparatus and processing information obtained with the digital media reader 120 and/or the digital capture devices 110, 111. The CPU 122 may comprise one or more processors, controllers, logic circuits, and/or programmable circuits. The CPU is preferably weather proof and shock proof such as the DURAPAC processor manufactured by Dolch
20 Computer, Inc. The CPU 122 may output data to a printer 152 and/or a communication device 132. The printer 152 can be a color printer for printing out color photos obtained from the kiosk apparatus. The CPU 122 may also output the data to other output devices such as a digital photographic printer, a sticker printer, a T-shirt printer, a floppy disk, a

compact disk, a post card printer, a video cassette recorder or a variety of other devices. The communication device 132 can transmit the data to a remote location such as a data server, a computer, a television, a monitor, or another kiosk apparatus. For instance, the data can be transmitted through communication line 128 via a variety of communication devices for eventual reception by a web site, mailbox or other destination. The communication line 128 is capable of connecting via wireless, radio, cable, DSL, landline, T1 line, or the like. The mobile kiosk apparatus 200 may also be provided with similar communication device(s) including a communication line 228 which may be connected via a CANNON plug connector.

As shown in FIGS. 5 and 6, the communication device 132 is connected with internal circuitry to the CPU 122. The communication device 132 can be comprised of any suitable circuitry or components for transmitting data, such as a wireless modem, a wired modem, a DSL modem, a wireless cellular dish, a transmitter, a radio transmitter, an Ethernet card, a telephone transmitting device, a fiber optic device, a fiber optic cable, or the like. For example, the communication device 132 can comprise a wireless modem for connection to the Internet when the kiosk apparatus is isolated from a telephone outlet. Other devices can be used for wireless transfer. For instance, the CPU 122 could be connected to an antenna 136 for wireless communication. A variety of antennas could be used such as parabolic, HF, VHF, SHF, or the like. Alternatively, the CPU may be connected to a Cellular Digital Packet Data Modem ("CDPD"), a router such as a CISCO uBR7246 universal broad band router, local area network, wide area network, Ethernet connection and/or a cellular phone communication jack, or the like. A local area network comprises a network of devices in communication with one another that spans a relatively small area when compared to a wide area network. A wide area network, such as the

Internet, comprises a network of devices in communication with one another that spans a relatively large geographical area when compared to a local area network. A wide area network may consist of two or more local area networks.

The mobile kiosk apparatus 200 can also be transported to the remote location for downloading and/or could include a memory drive (not shown) for transferring
5 information. For instance, an attendant operating the mobile kiosk apparatus 200 can collect the data with the memory drive and upload the information to the remote location periodically or on demand. The memory drive can also be provided for loading software on the system for execution by the CPU 122. The memory drive can take many forms
10 such as a CD drive, a floppy drive, a ZIP drive, a JAZZ drive, or the like, for data transfer.

The apparatus may include a visual display 112 for presenting visual information and speakers 150 for providing audio information, each being located on one side 138 of the apparatus. Preferably, the display 112 can be rotated 360° and tilted up and down, thereby allowing the digital capture devices 110, 111 to capture the final product as a
15 digital photo or video. For example, the display may be oriented manually by a user or with a motor. By orienting the display 112, a user may point the digital capture device 110, 111 while simultaneously viewing the captured data with the viewing portion 113 of the display 112. The display 112 may be connected to the CPU 122 by an appropriate monitor connector, such as a VGA or HD15 cable. A traditional or touch screen display
20 may be used that is hardened and weatherproof, such as the DIABLO display manufactured by Dolch Computer Inc. The kiosk apparatus may also include a cover (not shown) to protect the display. For example, the cover may comprise a transparent plexiglass shield. A full hood (not shown) may also be provided for protecting the kiosk

when the kiosk apparatus is not in use.

The adjustable display 112 also allows for modifying and enhancing the data before transmitting the data to the remote location. For instance, messages, audio or images can be added, and the image and/or audio data can be enhanced or manipulated. In one
5 embodiment, the housing 114 of the display 112 is hardened and weatherproof and at least partially encloses the digital capture devices 110, 111, the CPU 122, and the display 112. The CPU 122 may either be positioned inside the housing 114, inside the stand 102, or outside the stand in another suitable location.

Other input devices may be provided for interacting with the kiosk apparatus
10 and/or for adding additional information to the digital data. For instance, textual or audio information can be added by input devices such as a keyboard 106, a pointing device 108, a microphone 134, or an electronic writing pad 121. As shown in FIGS. 3-6, the input devices are electrically connected to the CPU 122 for example by a serial cable or USB cable. Alternatively, the input devices could link to the CPU with an infrared or a wireless
15 communication device. The keyboard 106 may or may not rotate with the display 112 and can have an ergonomic location below the display 112. The microphone 134 can be used to add audio information to the digital data and/or can be used in combination with voice recognition software to allow keyless entry of textual information. The optional electronic writing pad 121 converts handwriting into bitmap or other format which can be attached
20 or integrated with the digital data. The electronic writing pad 121 may include a stylus 123 for entry of written information. Furthermore, the pad 121 may also be used in combination with text recognition software to allow keyless entry of textual information. The keyboard 106 is preferably weatherproof such as the STORM (Model No. 11000203)

manufactured by MGR Industries. The pointing device 108 is preferably a hardened, weatherproof design. For instance, the pointing device 108 can be a mouse/joystick type device, such as, an IM2-P joystick made by MGR Industries.

The components of the apparatus may be connected to a power strip 146 including
5 a surge protector to protect the electrical components from power surge damage. For instance, the power strip may be connected to a power source by wiring 124 directly to an external power supply or by plugging into a power outlet. The power strip 146 can also be connected to a self-contained power supply 130, such as a rechargeable battery, for convenience and situations where the apparatus is installed away from a power source.
10 For instance, the external power supply can comprise a battery 130, such as a battery rechargeable by power received from the wiring 124. Solar energy can also be used to power the apparatus or to recharge a battery of the apparatus. For instance, a solar panel 126 can be electrically connected to a battery 130, thereby allowing the battery to be recharged. The solar panel 126 can also be directly connected to the power strip 146 to
15 at least partially power the kiosk. Protective shielding (not shown) can also be included to isolate the battery from adjacent components. The mobile kiosk apparatus 200 can also have a power source identical to the power source of the apparatus 100 including a battery 230 with wiring 224.

The kiosk or input kiosk may include a sensor, for instance, an infrared or motion
20 sensor 142 in the housing to allow the input devices to capture information after the occurrence of a particular event. If the sensor 142 detects a particular event, such as motion, the sensor 142 activates a sensor motor 144 which causes the kiosk apparatus to collect visual and/or audio information and/or to power up the kiosk for operation.

The kiosk apparatus may further include a tracking device (not shown) to deter theft. For instance, a LOJACK tracking device can be installed to assist in locating a kiosk apparatus that is stolen. The kiosk apparatus can also include a global positioning system 148 to determine the location of a kiosk apparatus and to display or transmit the
5 location of the kiosk apparatus to another location. This system may be useful where the location of the kiosk apparatus changes, for example, an apparatus installed on a cruise ship.

It will be appreciated that the kiosk apparatus of this invention has a wide variety of applications. As mentioned above, the kiosk apparatus 200 of FIG. 2 can include a cart
10 for mobility. The mobile kiosk apparatus 200 includes many of the features of the apparatus 100 of FIG. 1 and FIGS. 3-5 including a self-contained power supply 230, such as a battery as discussed above. An attendant can operate the apparatus, monitor a user, and/or accept payment from a user.

Alternatively, as shown in FIG. 1, the kiosk apparatus 100 can be anchored to a
15 support surface and operated entirely by a user. Such a kiosk apparatus 100 would be secured to a particular location without the need for an attendant to assist the user.

In another embodiment, a kiosk as described above could be used as a master kiosk to control and obtain data from a slave kiosk. The slave kiosk can be located at a distant observation point for obtaining and transmitting input data to the master kiosk.
20 The slave kiosk, in this case, may not necessitate the need of a display, card reader or currency validator. In operation, a user would approach the master kiosk and link to the slave kiosk. Once linked, the user can control the slave kiosk by entering in commands with the master kiosk. For instance, the user can input a command that would direct the

slave kiosk to collect data by activating an image capture device having a motor, and/or various other devices of the slave kiosk. The data can then be transmitted by the slave kiosk to the master kiosk for access by the user. While accessing the data, the slave kiosk may appear transparent to the user, thereby making it appear that the user is actually
5 viewing information from the distant observation point.

It will also be appreciated that the master kiosk may be linked with another master kiosk in order to video conference wherein visual and/or audio information are transmitted in real time between the master kiosks. A plurality of master kiosks or other video conference devices may also be linked together to allow a group video conference.

10 As best shown in FIGS. 1-4, the kiosk apparatus 100, 200 may have components such as the housing 114 formed in the shape of an eye with the display 112 representing the pupil of the eye. The solar panel 126 may be formed in the shape of an eyebrow to compliment the shape of the housing 114. Moreover, the components of the kiosk apparatus may be housed in a hardened case to protect the kiosk apparatus from weather
15 and vandalism. The hardened case is useful where the kiosk apparatus is used outside or in unguarded tourist locations, vacation spots, and other public places.

The kiosk apparatus could also include a heating, ventilation, air conditioning ("HVAC") device for preventing the components of the apparatus from overheating. For instance, ventilation slots could be provided in the kiosk apparatus or the apparatus could
20 include a fan or an air conditioning unit such as a heat pump.

FIG. 7 illustrates a flow diagram 400 demonstrating a step-through menu that allows the user to select one or more of the various alternative applications for the kiosk apparatus. In this embodiment, a user is initially greeted with a start screen, as indicated

by block 402. The start screen provides the user with general information regarding the various services offered by the kiosk apparatus. The user may select from the following services: a digital telescope, indicated by block 404; a digital video, indicated by block 410; a digital photo/e-mail, indicated by block 428; digital photo or file upload, indicated
5 by block 450; video conference, indicated by block 468; data retrieval, indicated by block 482; or e-mail with stock card or stock video, indicated by block 490. A stock card or stock video, referred to throughout this application, refers generally to any form of media, multimedia, or the like. There may be one or more stock cards/videos available on the system for selection by various users of the kiosk.

10 The user may select the digital telescope option, indicated by block 404, if the user desires to obtain a digital view of a surrounding scene. If the telescope option 404 is selected, a payment screen 502 appears. The user provides payment corresponding to the time interval of use as described in more detail below. A digital telescope screen, indicated by block 406, then appears and a timer starts to count down the time interval as
15 shown in FIG. 8. A large portion of the viewing portion 113 displays the images gathered by the digital capture device 111 of the kiosk apparatus. The user may adjust the display 112 in order to change the viewing direction and may also focus, zoom in, and zoom out to observe the surrounding scene, as indicated by block 408. The digital capture device 111 may also be provided with various filters for modifying the image data obtained from
20 the kiosk apparatus. Once the time has elapsed, the start screen reappears, indicated by block 402 as shown in FIG. 8.

The user may also select digital video option, indicated by block 410, if the user is interested in capturing a digital video and sending the video to another location. The

digital video could be provided alone or in combination with audio information as well.

If the digital video option is selected, the payment screen appears, indicated by block 502.

After payment, the digital video screen appears as shown by block 412 in FIGS. 7 and 9.

The user has a limited time period to record a video, indicated by block 414, with the

5 digital capture devices 110, 111. During that time, the user may focus, zoom in and zoom out, as indicated by block 416, with the capture devices 110, 111 as desired. After the predetermined time interval has elapsed, the user may review the recorded video to determine whether the video is satisfactory, indicated by block 418. If the user is not satisfied, the digital video may be retaken a limited number of times.

10 If satisfied, the user adds an address and message as indicated by block 420. For instance, the user can look up e-mail addresses, indicated by block 422, from the kiosk system, an informational web site, or another location. As shown by block 424, a stock message can also be added before sending the video. The message can be typewritten, or include a stock photo or video previously stored on the kiosk apparatus. For instance, a
15 professional video clip or a map of the surrounding area can be stored for use as a stock video or photo by various users.

Before or after sending, the user is also prompted whether the same video should be sent to another person, as indicated by block 426. If the video is to be sent to another person, the user is looped through the payment screen, as indicated by block 502 in FIG.
20 9, and back to the address and add message screen, indicated by block 420. Otherwise, the user is routed back to the start screen as shown by block 402 in FIG. 9.

The user may select the digital photo/e-mail option, indicated by block 428, if the user wants to capture a digital photo and then send the photo to another location. If the

digital photo/e-mail option is selected, the payment screen appears as indicated by block 502. After payment, the digital photo/e-mail screen appears as shown by block 430 in FIGS. 7 and 10. The user can rotate the capture device, zoom in, zoom out and focus with the digital capture device before capturing the photo as shown by block 432 in FIG. 10. Once the viewed scene is satisfactory, the user may either manually snap the photo, indicated by block 434, or automatically take the photo with a timer as indicated by block 436. Capturing the photo with a timer allows the user enter the scene before the digital photo is taken. Once the photo is captured, the user views the photo and determines whether the image is satisfactory as indicated by block 438. In the dual camera mode, a split screen image/video may be captured. If the user is not satisfied, the photo may be retaken a limited number of times.

When the user obtains a satisfactory photo, an optional frame may be added to the card, as indicated by block 440. For instance, the photo can have a seasonal frame including linked candy canes with a seasonal message incorporated therein. Alternatively, the photo could be embedded or attached to a stock card or stock video such as a stock card or video with a seasonal theme. Other types of frames, cards and/or videos can also be provided as options to enhance the appearance of the photo. Once the user has chosen whether to add a frame, stock card or stock video, an address and add message screen appears as shown by block 442. The user can look up e-mail addresses, indicated by block 444, in a similar manner as the user can look up addresses with the digital video option. A stock message, indicated by block 446, can also be added in a similar manner as adding a stock message with the digital video option.

Prior to, or after sending, the user is also prompted whether the same photo should

be sent to another person as indicated by block 448. If the photo is to be sent to another person, the user is looped through the payment screen, as indicated by block 502 in FIG. 10, and back to the address and add message screen, indicated by block 442. Otherwise, the user is forwarded to the start screen as indicated by block 402 in FIG 10.

5 The user may select the digital photo or file upload option, indicated by block 450, if the user has a medium containing information to upload to another location. For instance, a removable memory unit containing digital photos can be removed from a digital camera and the data therein uploaded to the kiosk apparatus. If the digital photo or file upload option is selected, the payment screen appears as shown by block 502.
10 After payment, the digital photo or file upload screen appears as shown by block 452 in FIGS. 7 and 11. The medium may then be inserted into the kiosk, indicated by block 454, for uploading data from the medium to the kiosk.

 Once the files are read, an address and add message screen appears, indicated by block 456, and the user selects the data to be uploaded as indicated by block 458. The
15 user can look up e-mail addresses, indicated by block 460, in a similar manner as the addresses are found with the digital video option. If the user is sending the information by e-mail, a frame, stock card or stock video may be provided, as indicated by block 462, for the corresponding data in a manner similar to the adding a frame, stock card, or stock video option of the digital photo/e-mail option. Alternatively, if the data is being uploaded
20 to a web site, an electronic folder can be created on the site. The folder would organize the electronic files and ease location of the files at a later time. Once the transfer selection is complete, the information is either sent to the web site for storage or e-mailed to another user for download as indicated by block 464.

Prior to, or after sending, the user is also prompted whether the same data should be sent to another person as indicated by block 466. If the data is to be sent to another person, the user is looped through the payment screen, indicated by block 502 in FIG. 11, and back to the address and add message screen as indicated by block 456. Otherwise,
5 the user is routed back to the start screen as indicated by block 402 in FIG. 11.

As another example, if the user wants to video conference with another person in real time, the user may select the video conference option as indicated by block 468. If the video conference option is selected, the payment screen appears as indicated by block 502. After payment, the video conference screen appears as indicated by block 470 in
10 FIGS. 7 and 12. A digital capture device 110 is directed towards the user for conferencing. The user may then zoom in and zoom out and focus the capture device 110 as shown by block 472. Once the conference view has been set up, the user selects the address(es) for the other conference member(s), indicated by block 474, for conferencing with one or more other conference members. After selection of the address(es),
15 a connection between the conference member(s) is established, indicated by block 476, and a conference timer begins counting down a preselected time interval as indicated by block 478. After the time interval has elapsed, the user may extend the time as indicated by block 480. If the user decides to extend the time, the user is looped to through the payment screen, as indicated by block 502 in FIG. 12, and then the conference timer
20 begins counting down the new preselected time interval indicated by block 478. If the user does not pay to extend the time, the conference call ends and the start screen is displayed as indicated by block 402 in FIG. 12.

The user may also be interested in obtaining information with the kiosk. The

information can be stored on the kiosk or can be contained in other computers linked to the kiosk by the Internet or otherwise. For instance, local area information (e.g., maps) can be stored directly on the kiosk for viewing. Alternatively, the user can browse the web for additional information. The user may select the data retrieval option, indicated by block 482, in order to search for information. If the data retrieval option is selected, the payment screen appears as indicated by block 502. After payment, the data retrieval screen appears, as indicated by block 484, and a timer starts counting down a preselected time interval as illustrated in FIG. 13. The user may then search for the desired information, indicated by block 486, until the time interval expires. Once the time interval elapses, the user is given the option to extend the time as indicated by block 488. If the user decides to extend the time, the user is sent through the payment screen, indicated by block 502 in FIG. 13, and then the timer begins to count down the new preselected time interval. If the user decides to end the data retrieval search, the start screen is displayed as indicated by block 402 in FIG. 13.

The user may also be interested in e-mailing someone an electronic card with a message attached to the card. For instance, a user may select a seasonal card from a set of stock cards and add a seasons greeting to the card. If the user is interested in e-mailing a stock card, the user may select the e-mail with stock card option as indicated by block 490. If the user selects the e-mail with stock card option, the payment screen appears as indicated by block 502. After payment, the e-mail with stock card screen appears as indicated by block 492 in FIGS. 7 and 14. The user may decide to select a stock card or stock video to e-mail as indicated by block 494. Otherwise, the user can simply e-mail a message without the card. An address and add message screen then appears as indicated by block 496. As with many of the options above, the user can select and look up e-mail

addresses, indicated by block 498, from the internal memory of the kiosk apparatus or an informational web site. A stock message can also be added, as indicated by block 497, in a similar manner as the user could add a stock message with the digital video option. Prior to, or after sending, the user is also prompted whether the same video should be sent to another person as indicated by block 499. If the video is to be sent to another person, the user is looped through the payment screen, as indicated by block 502 in FIG. 14, and back to the address and add message screen indicated by block 496. Otherwise, the user is looped back to the start screen as indicated by block 402 of FIG. 14.

FIG. 15 illustrates of a flow diagram illustrating the method of providing the kiosk apparatus with payment. All of the options route the user through the payment screen, indicated by block 502, before the services are rendered. From the previous selection, indicated by block 504, the user enters the payment screen wherein the user has a number of alternatives in which to provide payment. For instance, the user may insert a credit or debit card, indicated by block 506, into the card reader 116 of the kiosk apparatus, thereby providing the kiosk apparatus with payment account information.

Alternatively, the user may provide currency as payment, indicated by block 508, by inserting the currency into a currency validator 118. The user can also provide payment by charging the fees to a pre-paid user account or to a credit account as a registered user of the kiosk apparatus as indicated by block 510.

The user can also provide payment by charging the fee to the user's cellular telephone as indicated by block 512. If an attendant is present, the user can provide payment by simply paying the attendant as indicated by block 514. If the user fails to provide payment to the attendant, the user is not permitted to continue using the kiosk and

the attendant resets the kiosk apparatus to the start screen as indicated by block 402 of FIG. 15. Similarly, if an invalid payment is received with one of the other payment methods, the kiosk apparatus then displays the start screen as also indicated by block 402 of FIG. 15.

5 In another embodiment, an invalid payment or no payment can loop the user back through the payment screen again to make a further attempt at providing a valid payment. If a valid payment is received, the apparatus displays the screen, indicated by block 516, associated with the selected option.

FIG. 16 illustrates a flow diagram of a method 300 of using a kiosk apparatus 100, 10 200 such as the kiosk apparatus 100, 200 shown in FIGS. 1-6 corresponding to the digital photo or file upload option indicated by block 450. The method includes obtaining data from a conventional portable electronic device as shown by block 302. For instance, a digital photo can be taken with a digital camera or a digital video can be recorded with a digital video camcorder. Alternatively, data may be obtained with other devices such as 15 an electronic organizer such as a PALM PILOT organizer, cellular phone, personal computer, or the like. The data could include all types of data including digital data, non-digital data, digital image data, digital video data, programs, compressed data, encrypted data, or the like.

After the data has been obtained, the user approaches the kiosk apparatus, as 20 indicated by block 304, and pays the fee associated with the service to be rendered, as indicated by block 306. Once the kiosk apparatus approves payment, the data may be directly transferred from the portable electronic device to the kiosk apparatus as indicated by the arrow leading from block 306 to block 312.

Alternatively, the method may include the additional step of removing a conventional compact storage unit containing the data from the electronic device as indicated by block 308 and then inserting the storage unit into the digital media reader 120 as indicated by block 310. Once inserted, the digital media reader 120 reads the data from the storage unit and uploads the data from the storage unit to the kiosk apparatus as indicated by block 312. This may occur automatically upon loading the storage unit, or manually upon input by the user. The data read may be entered into memory, such as RAM, hard disk, floppy disk, or other storage medium which can be accessed by the CPU. In addition, other examples for transferring the data from the electronic device include: floppy disk, PCMCIA card, Infrared, parallel cable, SCSI cable, serial cable, or USB cable.

Once the data is transferred from the compact storage unit to the kiosk apparatus, the data may be transmitted to the remote location, as indicated by block 316. The data may be transmitted using a communication device that provides a wireless, radio, telephone, wired, or Ethernet connection to the Internet. The data may be transmitted by a direct communication route between the kiosk apparatus and the remote location or via indirect routes, such as the Internet or the World Wide Web. In addition, the kiosk apparatus can also include a device (not shown) adapted to encrypt the data or otherwise secured the data to prevent unauthorized viewing of information. Moreover, a camcorder, or other portable electronic device could be linked to the kiosk apparatus for downloading during or shortly after capturing the data with the portable electronic device.

As shown in FIG. 16 the flow diagram may include the additional step 314 of selecting and entering stock data to the data uploaded from the compact storage unit. For

instance, the user can select a stock electronic greeting card or video clip to add to the data uploaded from the compact storage unit. For instance the electronic greeting card can be sent as an attachment with the uploaded data or sent embedded with the uploaded data. The additional step 314 may also use other input devices such as a touch screen display, a keyboard, a pointing device, and/or a microphone to add a textual or audio message to the data or to the data and the electronic greeting card. Moreover, the card and/or data may be otherwise edited, manipulated, enhanced and/or customized during step 314. The step of transmitting would further include transmitting the uploaded data with the newly added data.

Turning to FIG. 3, the kiosk apparatus may be used to digitally record and send digital image post cards or photos from tourist locations without the need for a camera. As discussed in detail above, in one application, the user may orient the display 112 to direct the rear digital capture device 111 towards a scene 154. The scene could comprise of a view of a person, place, and/or object, or the like. After paying a fee, the user can focus, zoom in and/or zoom out to view a portion 156 of the scene to be captured.

An image is then captured as a digital photo 157. The user may then enhance, manipulate, or otherwise alter the photo using editing software on the kiosk apparatus. For instance, the user could change the color, crop the photo, change the brightness, or edit the photo in another manner with photo editing software.

The user could also create a digital post card by adding a frame, stock card or stock video. For instance, a seasonal frame 158 may be selected to frame the photo. A message could also be added to the photo and/or incorporated with the frame, stock card or stock video. For instance, a seasonal message 160 could be incorporated as part of the

seasonal frame 158.

Once the user is satisfied, the address of the remote location is entered or looked up and then entered into the kiosk apparatus. For instance, after entering in an e-mail address of another user, the digital post card is then e-mailed through a communication
5 line 128. Eventually, a remote location, such as a remote computer 162 receives the photo/post card as a digital e-mail message.

In general, at least one embodiment of the invention allows for the public to digitally record and send digital image post cards from tourist locations without the need for a camera, stamps, film, or film development, and without the delay in developing and
10 sending traditional photographs. Moreover, at least one embodiment of the invention allows the public to free the memory of a portable electronic device, such as a digital camera for example, without losing the data stored therein, and without requiring additional memory units to be available.

The foregoing description of the various embodiments of the invention has been
15 presented for the purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form disclosed. For instance, the instant invention could take any form that would provide convenient access to a user. As discussed above, one such embodiment could take the form of a kiosk. Many alternatives, modifications and variations will be apparent to those skilled in the art of the above
20 teaching. Accordingly, this invention is intended to embrace all alternatives, modifications and variations that have been discussed herein, and others that fall within the spirit and broad scope of the claims.

WHAT IS CLAIMED IS:

1. A user apparatus for gathering and transmitting data to a remote location comprising:

a) an image device adapted to gather image data from a scene outside the user apparatus;

5 b) a vending apparatus adapted to accept payment;

c) a processing unit in communication with the vending apparatus and the image device and configured to receive the image data and detect the payment; and

d) a communication device in communication with the processing unit and configured to transmit the image data to a remote location.

2. The user apparatus of claim 1, wherein the user apparatus comprises a kiosk apparatus.

3. The user apparatus of claim 1, wherein the image device comprises an input port adapted to obtain the image data from another device.

4. The user apparatus of claim 3, wherein the input port comprises a digital media reader adapted to read data recorded on a portable memory unit by a portable electronic device.

5. The user apparatus of claim 1, wherein the image device comprises a digital image capture device.
6. The user apparatus of claim 5, wherein the digital image capture device comprises a video camcorder.
7. The user apparatus of claim 5, wherein the digital image capture device comprises a digital camera.
8. The user apparatus of claim 1, wherein the vending apparatus comprises a currency validator adapted to accept currency as payment.
9. The user apparatus of claim 1, wherein the vending apparatus comprises a card reader adapted to read payment account information from a card.
10. The user apparatus of claim 1, further comprising a display adapted to display information.
11. The user apparatus of claim 10, wherein the display comprises a touch screen display adapted to display and enter information.

12. The user apparatus of claim 10, further comprising an input device adapted to enter information.

13. The user apparatus of claim 12, wherein the input device comprises a keyboard.

14. The user apparatus of claim 12, wherein the input device comprises a pointing device.

15. The user apparatus of claim 12, wherein the input device comprises an electronic writing pad.

16. The user apparatus of claim 1, further comprising an audio capture device adapted to capture audio data.

17. The user apparatus of claim 16, further comprising voice recognition software adapted receive the audio data as input to allow keyless entry of textual information.

18. The user apparatus of claim 1, further comprising a weatherproof and hardened case.

19. The user apparatus of claim 18, wherein the case at least partially encloses at least one of the image device, vending apparatus, processing unit, and communication device.
20. The user apparatus of claim 1, further comprising a stand adapted to secure the user apparatus relative to a support surface.
21. The user apparatus of claim 20, wherein the stand provides the user apparatus with vertical adjustability.
22. The user apparatus of claim 21, wherein the stand comprises telescoping members adapted to provide the user apparatus with the vertical adjustability.
23. The user apparatus of claim 1, further comprising a transport mechanism adapted to transport the user apparatus from one location to another.
24. The user apparatus of claim 1, further comprising a self-contained power supply.
25. The user apparatus of claim 1, further comprising a rechargeable battery.

26. The user apparatus of claim 1, wherein the communication device comprises a transmitter adapted to provide wireless transmission to a remote location.
27. The user apparatus of claim 1, wherein the communication device is adapted to connect to the Internet.
28. The user apparatus of claim 1, wherein the communication device is adapted to connect to a local area network.
29. The user apparatus of claim 1, wherein the communication device is adapted to connect to a wide area network.
30. The user apparatus of claim 1, wherein the communication device is adapted to connect to another user apparatus.
31. The user apparatus of claim 1, wherein the communication device is adapted to connect to a video conferencing device.
32. The user apparatus of claim 1, further comprising a solar device adapted to convert solar energy into electrical energy to power the user apparatus.

33. The user apparatus of claim 1, wherein the user apparatus is adapted to encrypt the image data.

34. A user apparatus for gathering and transmitting data to a remote location comprising:

a) a gathering device adapted to gather signals originating outside the user apparatus;

5 b) a vending apparatus adapted to accept payment;

c) a processing unit in communication with the vending apparatus and the device and configured to receive data and detect the payment; and

d) a communication device in communication with the processing unit and configured to transmit the data to a remote location.

35. The user apparatus of claim 34, wherein the user apparatus is adapted to encrypt the signals.

36. The user apparatus of claim 34, wherein the signals are audio signals and wherein the gathering device comprises an audio device for gathering the audio signals.

37. The user apparatus of claim 34, wherein the signals are video signals and wherein the gathering device comprises a video device for gathering the video signals.
38. The user apparatus of claim 34, wherein the signals are digital signals and wherein the gathering device comprises an information device for gathering the digital signals.
39. A method of gathering data with a portable electronic device and transmitting the data to a remote location comprising the steps of:
- a) obtaining data with a portable electronic device;
 - b) transporting the data to a user apparatus including a vending apparatus for accepting payment and a communication device for transmitting data:
 - c) providing the vending apparatus with payment;
 - d) transferring the data to the user apparatus; and
 - e) transmitting the data from the user apparatus to the remote location using the communication device.
40. The method of claim 39, wherein the transferring step comprises:
- a) removing a portable storage unit including the data from the portable electronic device;
 - b) inserting the portable storage unit into a digital media reader provided on the

user apparatus; and

c) transferring the data from the portable storage unit to the user apparatus.

41. The method of claim 39, wherein the step of providing payment comprises inserting currency into the vending apparatus.

42. The method of claim 39, wherein the step of providing payment comprises engaging a card with the vending apparatus and transferring payment account information from the card to the user apparatus.

43. The method of claim 39, wherein the step of providing payment comprises charging a fee to a cellular phone account.

44. The method of claim 39, wherein the user apparatus further includes an input device, and further including the steps of:

a) adding a textual or audio message to the data using the input device; and

b) wherein the step of transmitting includes transmitting the textual or audio message with the data.

45. The method of claim 39, further comprising the steps of:

- a) selecting an electronic greeting card; and
- b) adding the data to the electronic greeting card; and
- c) wherein the step of transmitting includes transmitting the electronic greeting
5 card with the data.

46. The method of claim 45, wherein the user apparatus further includes an input device, and wherein the method further comprises the steps of:

- a) adding a textual or audio message to the electronic greeting card using the input device; and
- 5 b) wherein the step of transmitting includes transmitting the textual or audio message with the data and the electronic greeting card.

47. A method of gathering and transmitting data to a remote location comprising the steps of:

- a) providing a user apparatus with payment;
- b) capturing image data using a digital capture device provided on the user
5 apparatus;
- c) transmitting the image data to a remote location using a communication device in communication with the user apparatus.

48. The method of claim 47, further comprising the step of encrypting the image data before transmitting the image data to the remote location.

49. The method of claim 47, wherein the step of providing payment comprises inserting currency into a vending apparatus.

50. The method of claim 47, wherein the step of providing payment comprises engaging a card with a vending apparatus and transferring payment account information from the card to the user apparatus.

51. The method of claim 47, further including the steps of:

- a) adding a textual or audio message to the data with an input device on the user apparatus; and
- b) wherein the step of transmitting includes transmitting the textual or audio message with the data.

5

52. The method of claim 47, further including the steps of:

- a) selecting a message using an input device on the user apparatus; and
- b) adding the message to the data; and
- c) wherein the step of transmitting includes transmitting the message with the data.

53. The method of claim 47, further comprising, saving the data prior to the transmitting step.

54. The method of claim 47, wherein the step of transmitting the image data comprises transmitting the data in real time.

55. The method of claim 47, wherein the data is transmitted in real time during a video conference between a user of the user apparatus and a user of a device.

56. The method of claim 47, wherein the step of transmitting the image data comprises transmitting the data through the Internet.

57. The method of claim 47, wherein the remote location comprises another user apparatus.

58. The method of claim 47, comprising the further step of capturing audio data with an audio capture device.

1 / 13

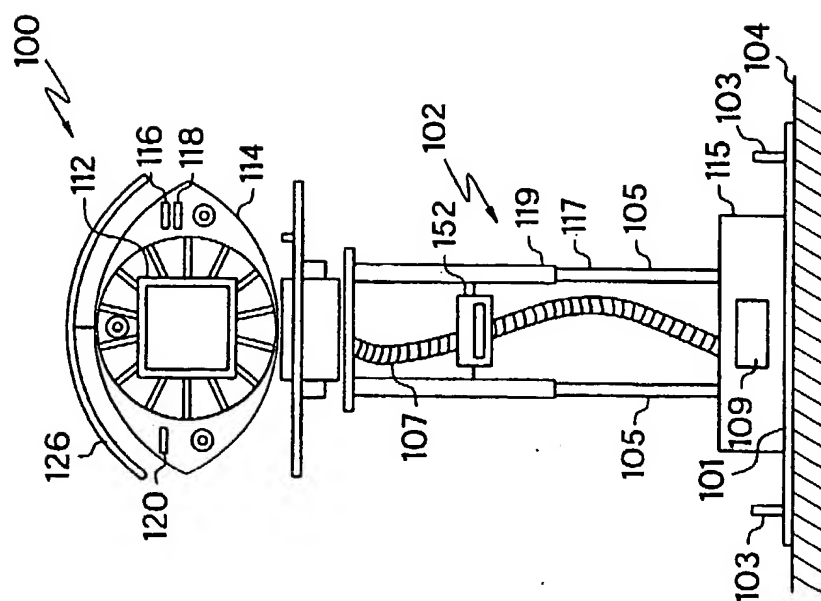


FIG. 1

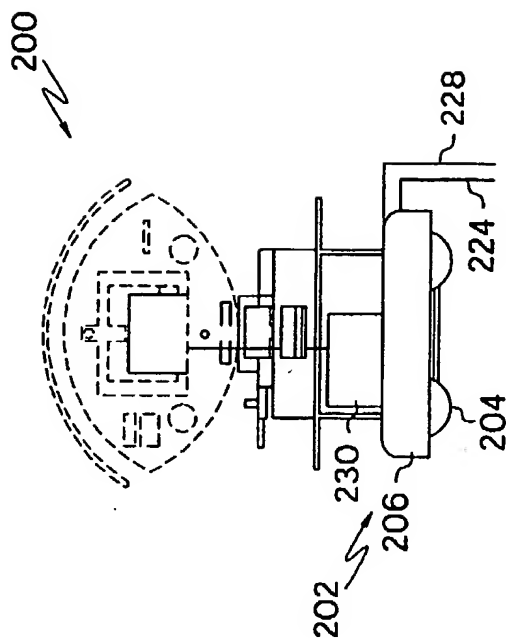
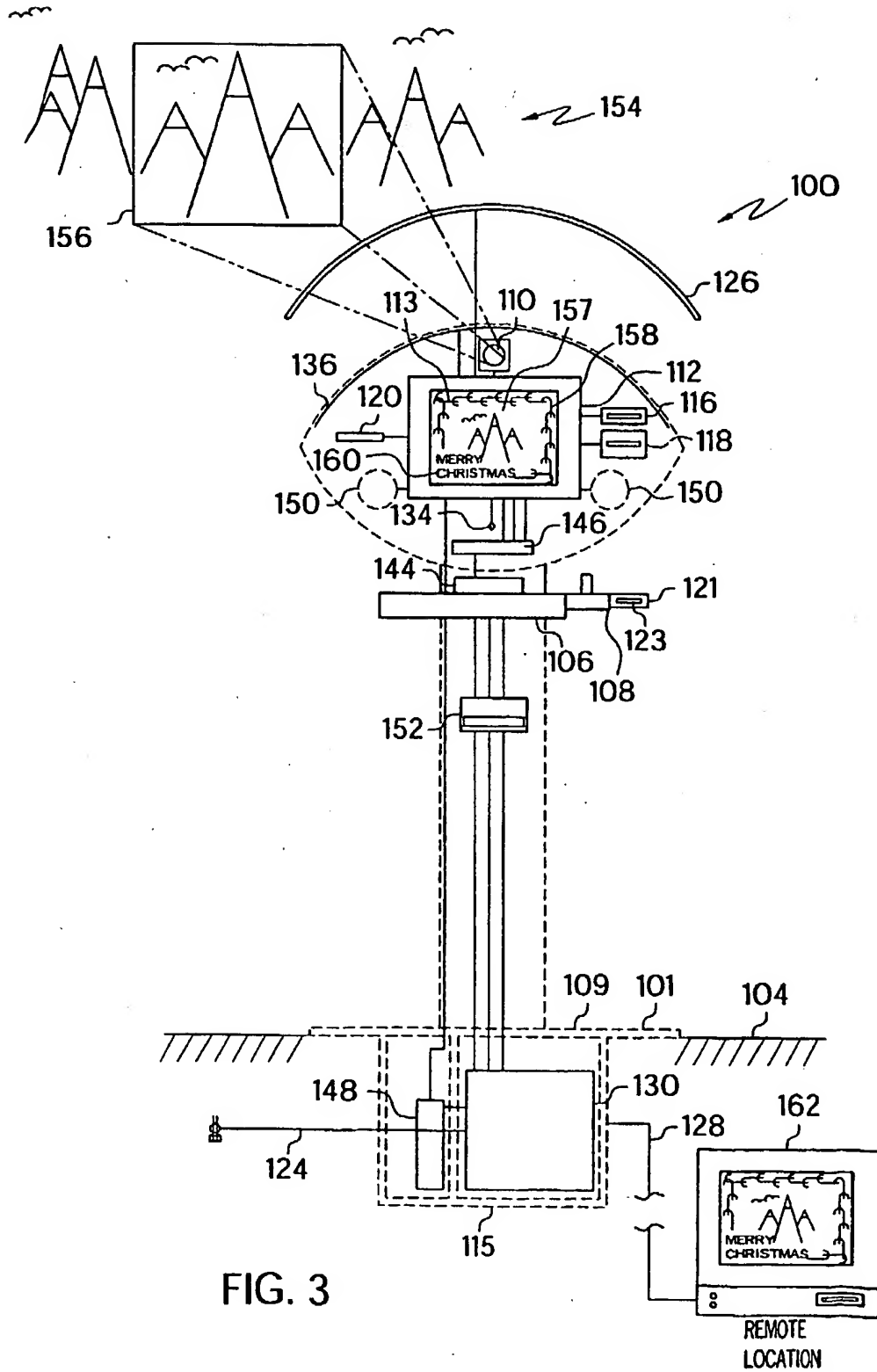


FIG. 2

2 / 13



3 / 13

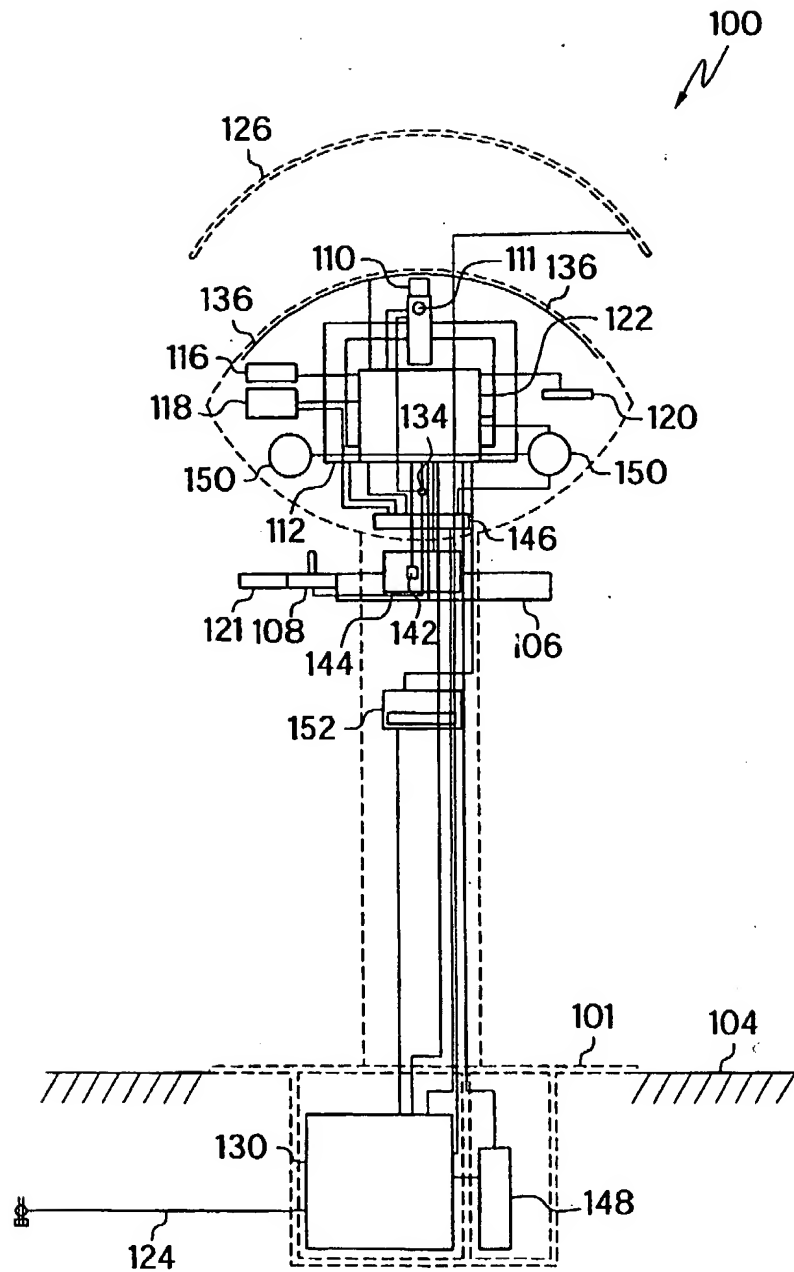


FIG. 4

4 / 13

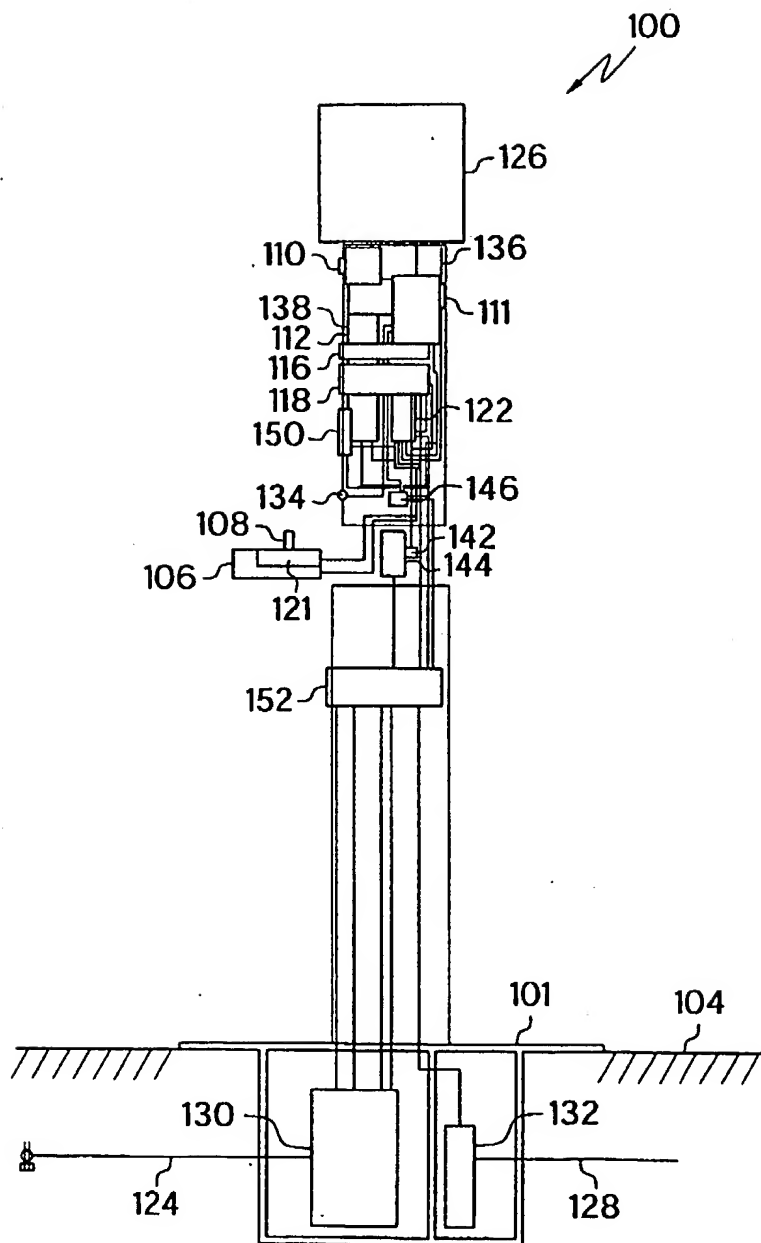


FIG. 5

5 / 13

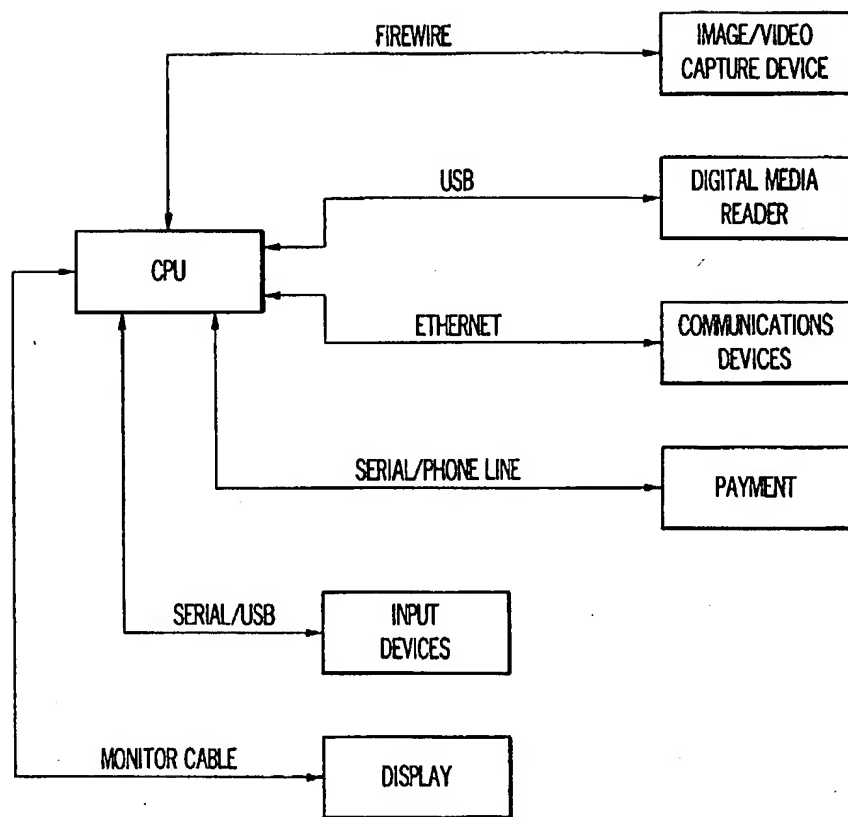


FIG. 6

6 / 13

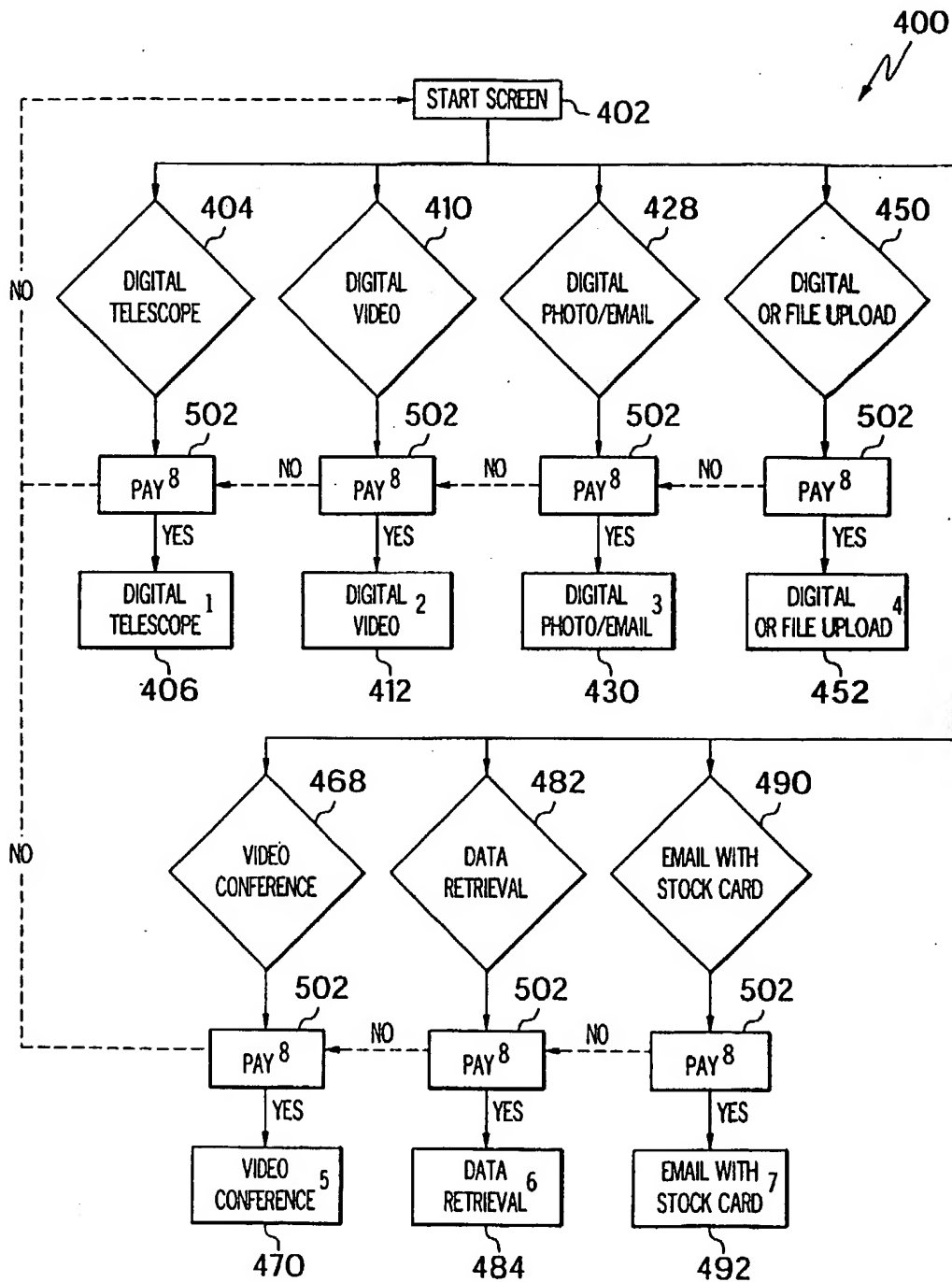


FIG. 7

7 / 13

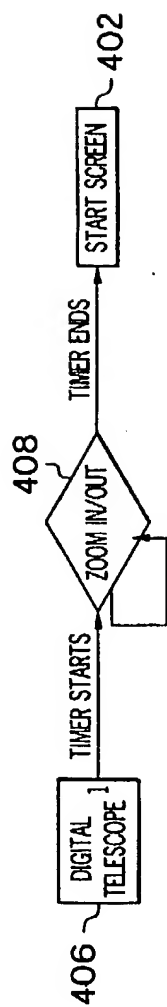


FIG. 8

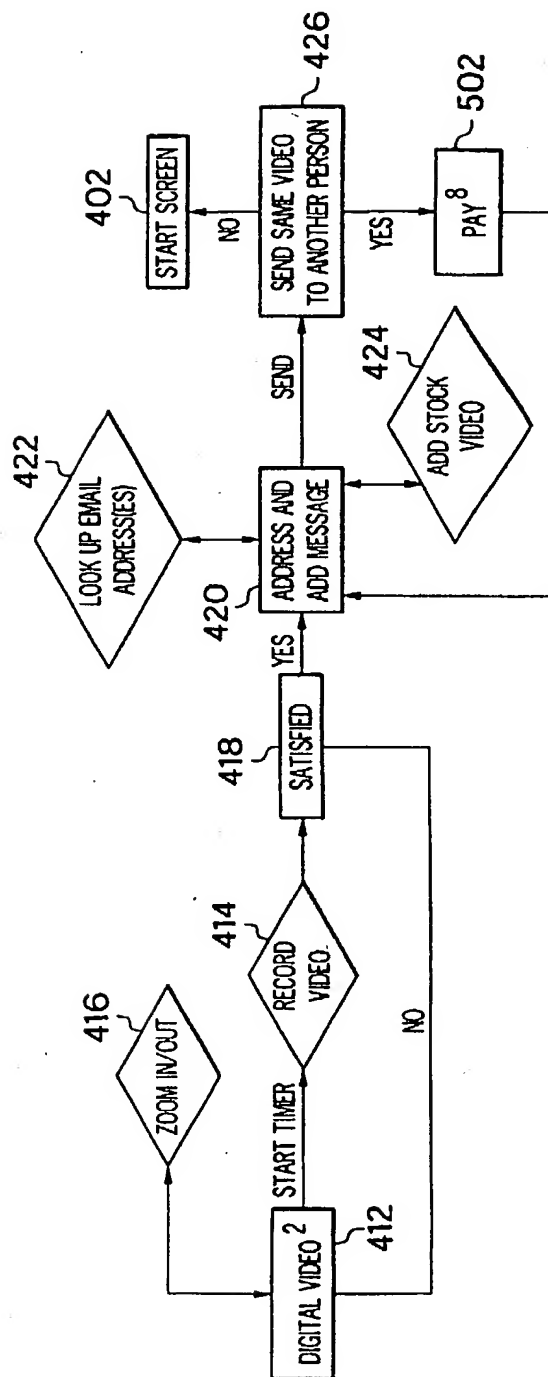


FIG. 9

8 / 13

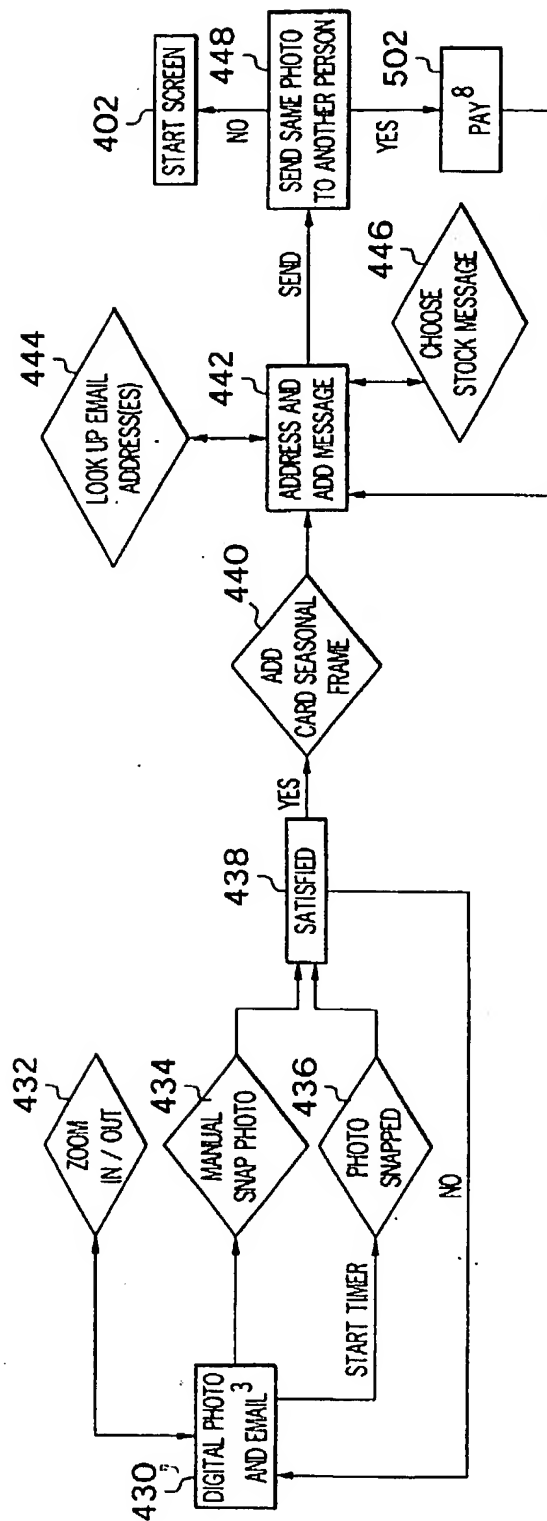


FIG. 10

9/13

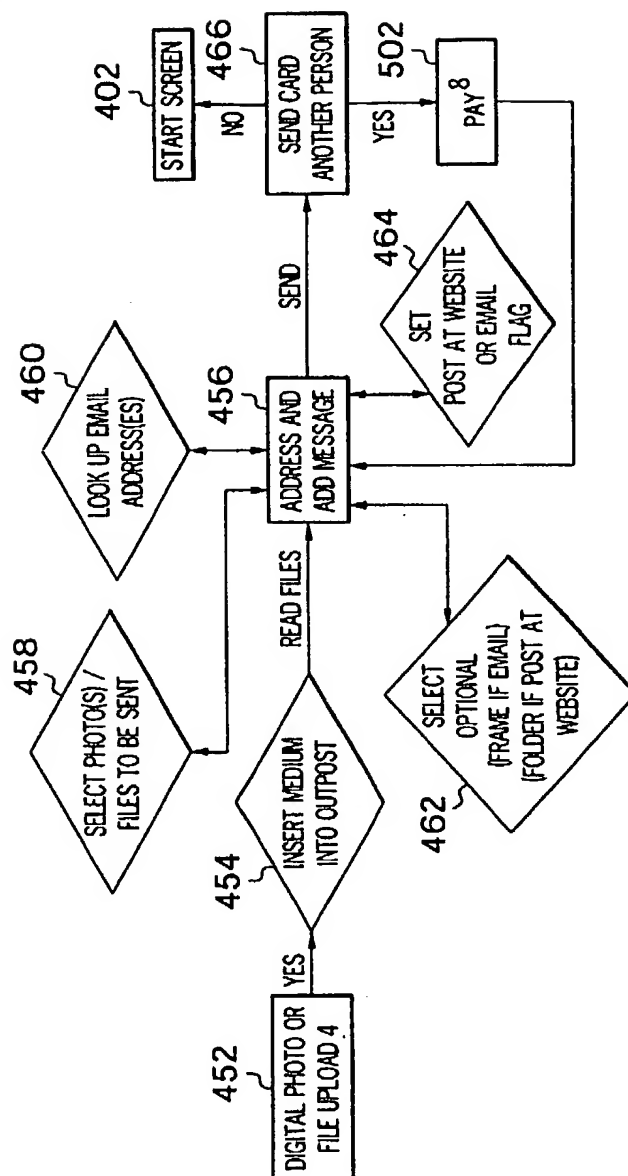


FIG. 11

10 / 11

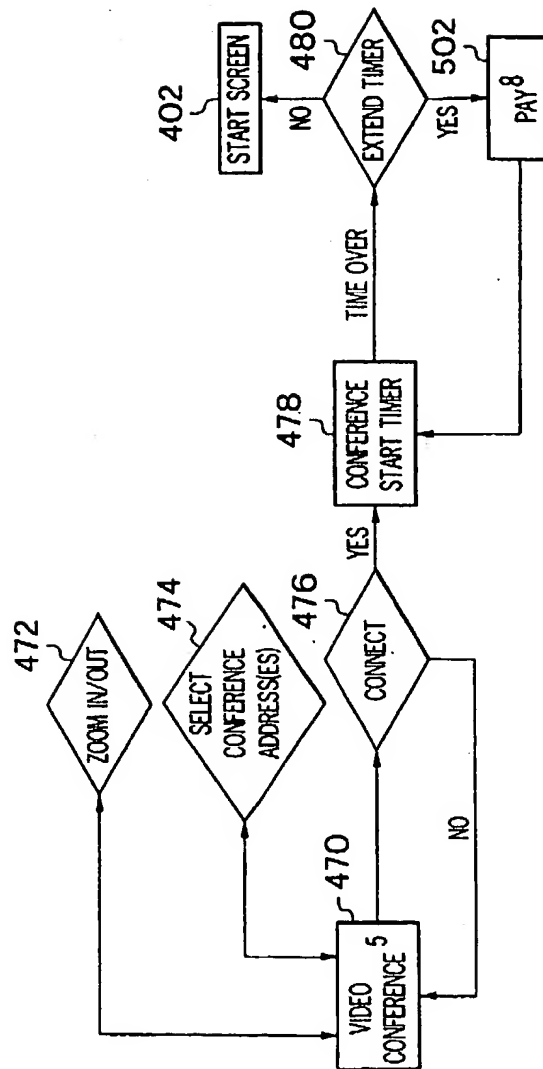


FIG. 12

11 / 13

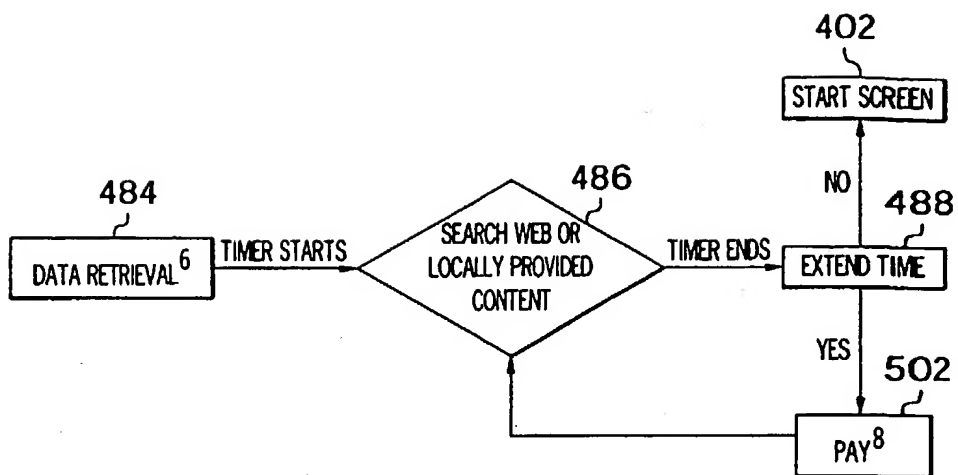


FIG. 13

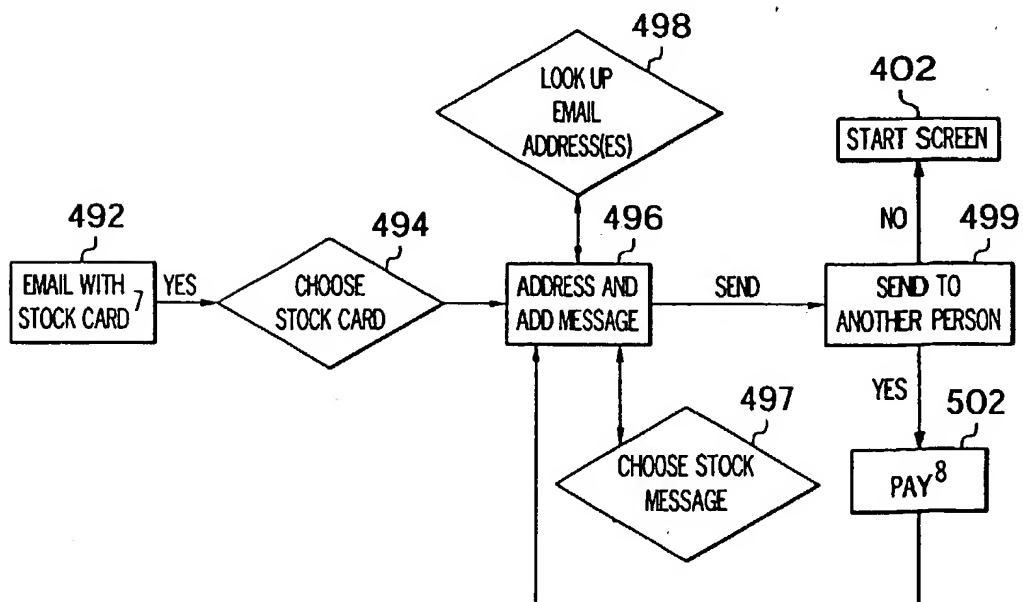


FIG. 14

12 / 13

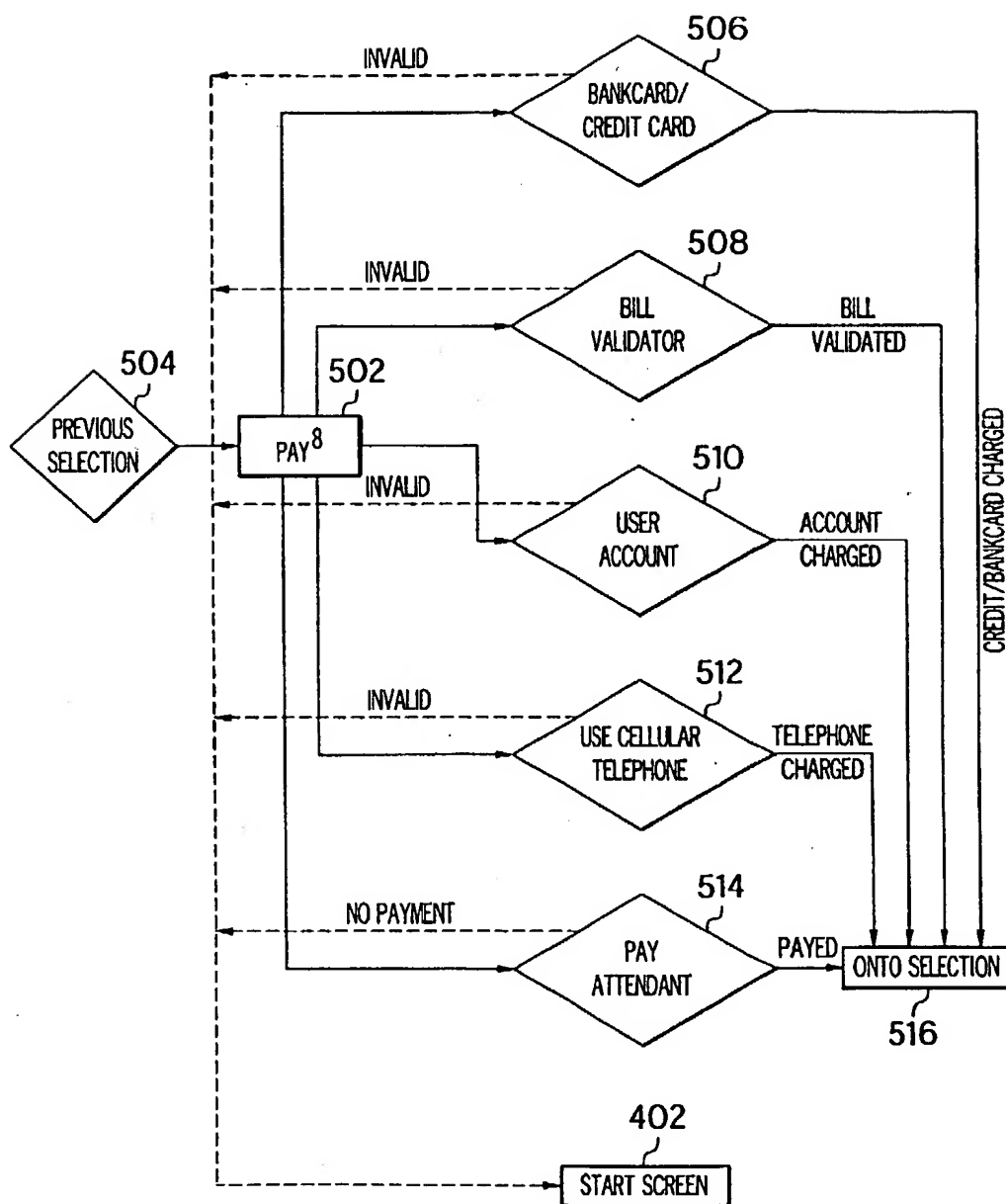


FIG. 15

13 / 13

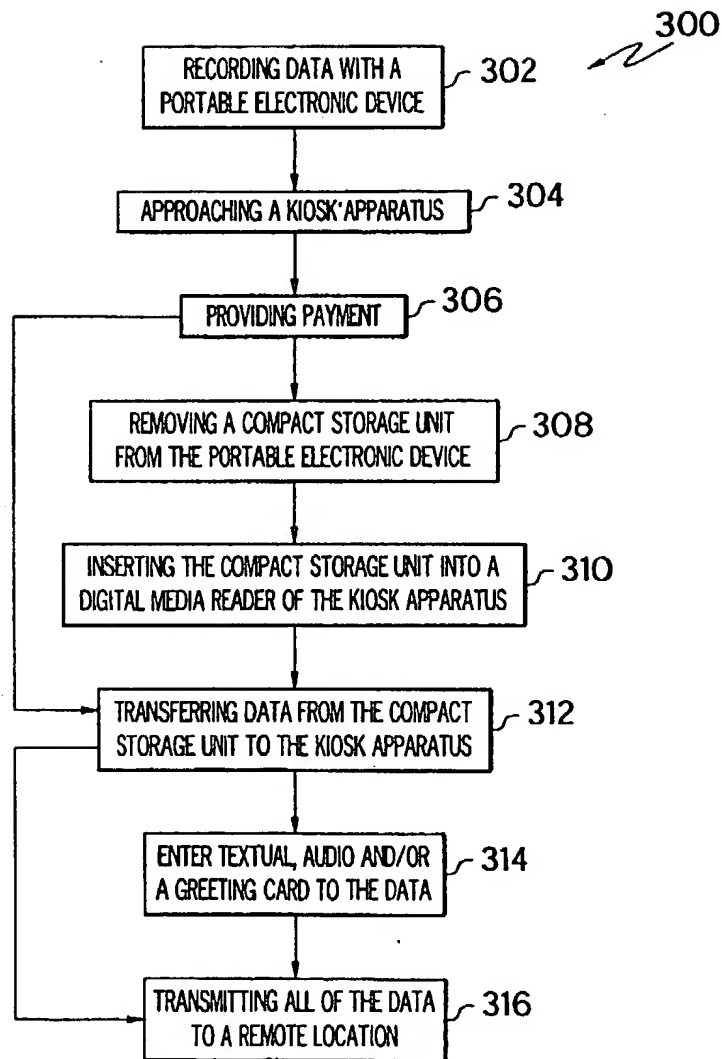


FIG. 16